



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,228	09/03/2003	M. Gregory Steinthal	022420-000110US	5698
20350	7590	10/31/2005	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			NGUYEN, THONG Q	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/655,228

Applicant(s)

STEINTHAL ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005 and 15 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The present Office action is made in response to the amendments filed on 7/18/05 and 8/15/05. It is noted that the amendment filed on 8/15/05 contains the all of subjects provided in the amendment filed on 7/18/05 with only changes to the drawings amendment has not been entered because it is unsigned.

It is noted that in the amendment of 8/15/05, applicant has made changes to the specification, the drawings, and the claims. Regarding to the claims, applicant has amended claims 1, 4-5, 8-10 and 13-15 and canceled claim 12.

While all of the changes to present claims 1, 4-5, 8-10 and 13-14 do comply with the requirement of 37 CFR 1.121; however, the change to present claim 15 does not comply with the rule. In particular, the claim as listed in the amendment of 8/15/05 is drafted to depend upon itself. The Examiner is of opinion that applicant has misnumbered the claim during the time the amendment(s) to the claim 15 is made. In the spirit of cooperation, the list of claims as filed in the amendment of 8/15/05 has been entered; however, the claim is subjected to the following rejection under 35 USC 112, second paragraph as set forth in this Office action. Applicant is also reminded that the amendment(s) to the claim form now on must comply with the requirement as set forth in 37 CFR 1.121.

Drawings

2. The annotated marked up drawing sheet was received on 7/18/05. The following changes as provided in the mentioned sheet are noticed by the Examiner: First,

applicant has amended the original figure 4 to figure 4a and made a correction to the now figure 4 by changing the number "14" to --9--; and second, applicant has added one more figure into the application and labeled that figure as figure 4b. Those changes are approved by the Examiner. As a result, the present application now contains four sheets of figures contained figures 1, 2, 3, 4a and 4b.

3. It is also noted that the replacement sheet as filed on 8/15/05 is not accepted because applicant has not provided a replacement sheet for figures 4 which sheet contains the changes as shown in the annotated marked up drawing sheet of 7/18/05.

Specification

4. The lengthy specification which is amended by the amendment of 8/15/05 has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is rejected under 35 USC 112, second paragraph because the claim depends upon itself. The Examiner is of opinion that the claim should be amended to depend upon claim 14.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 1-11 and 13-15, as best as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinthal et al (U.S. Patent No. 5,963,369) in view of Abe (U.S. Patent No. 5,581,399) (both of record).

Steinthal et al disclose a hand-held binocular device for providing a 3-dimensional image to an observer and to a solid state imaging device disposed inside the binocular device. The binocular device comprises two telescopes (1A, 1A) each comprises an objective lens system (2), a beamsplitters (18), a solid state imaging system (12A) and an eyepiece (3) wherein the telescopes are supported by a frame (1B). The solid state imaging device (12A) is in the form of a CMOS photo array (12) with optical lens (13) positioned in the front surface of the photo array (12). See column 3 and figs. 2. The only feature missing from the hand-held binocular device provided by Steinthal et al is that they do not disclose that the objective lens of the telescope is moved for the purpose of focusing.

The use of a mechanism for simultaneously moving the objective lens systems of the two telescopes constituting a binocular device for the purpose of focusing is known to one skilled in the art as can be seen in the binocular device provided by Abe. In particular, Abe discloses a binocular device having a frame supporting two telescopes wherein each telescope comprises an objective lens system (31), a prism system (32) and an eyepiece system (35) wherein a beam-splitter (33) is

used to split the light passed through the prism system to both an imaging system (41) and the eyepiece system (see columns 2-3 and fig. 1). The objective lens system (31) of each telescope comprises a plurality of lens elements. An autofocus system is used to move the objective lens system for the purpose of focusing. See column 3, lines 6-8. Regarding to the feature that the image detector is in the form of a charge coupled device or an optical sensor as recited in each present claims 5-6, such a feature is merely that of a preferred embodiment and not critical to the invention. The support for that conclusion is found in the present claim 4 in which the applicant has claimed that the imaging detector is in the form of a CMOS photo array which is clearly disclosed by Steinthal et al (see Steinthal et al, column 3, lines 60-65). Further, the use of an imaging detector in the form of a charge coupled device is also provided by Abe as can be seen in column 3, lines 53-58. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the binocular device for providing a 3-dimensional image to an observer and to a solid state imaging device disposed inside the binocular device as provided by Steinthal et al by moving the objective lens systems of the telescopes as suggested by Abe for the purpose of adjustment the focusing.

Response to Arguments

9. The amendments to the claims are not sufficient to make the device claimed patentable with respect to the applied art, and applicant's arguments filed on 8/15/05 have been fully considered but they are not persuasive for the following reasons.

A) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

B) In response to applicant's argument that the image is not focused onto the detector in the system of Abe because the detector system as provided by Abe comprises lens for focusing the focused image to the detector element, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

C) In response to the applicant's arguments that Abe does not disclose that the image is focused on the detector as claimed in present application because Abe discloses that the image is focused in front of a lens system and the lens system is used to focus the image onto the detector (41L), the Examiner offers the following opinions.

First, the position of the focused point with regarding to the detector or the whole embedded stereoscopic imaging system appeared as the same position as provided in the specification. Applicant is respectfully invited to review the

present specification, in particular, pages 3-5. In particular, in page 3, on lines 24-27, the specification discloses that the objective lens is moved for simultaneously focus the image to the eye and to the image detector. However, in page 4, lines 2-9 and pages 4-5 (page 4, last two lines through page 5, first three lines), the specification discloses that the objective lens is moved for simultaneously focus the image to the eye and to the embedded stereoscopic imaging system having an optical sensor.

Second, the use of an embedded stereoscopic imaging system having a lens and an optical sensor integrally formed together is disclosed in the primary reference, U.S. Patent No. 5,963,369 having the same inventor, Gregory Steintal.

Third, the feature related to the simultaneously focusing an image to the eyepiece and the detector as recited in the present claims is directed to the movement of the objective lens. In this aspect, the movement of the objective lens system as provided by Abe is clearly satisfied the feature recited in the present claims. Applicant is respectfully invited to review the art of Abe, in particular, in columns 2-4, which disclosed that the viewing system in each telescope and the image sensing system having a common objective section. In other words, the viewing system in each telescope comprises an objective lens (31), a prism (32) and a beam splitter (33) and an eyepiece (35) for viewing the image displaying on the display (34). The image sensing system comprises the mentioned objective lens (31), the mentioned prism (32), the mentioned beam splitter (33), and a sensing system having lens elements (421, 42) and detecting

element (41). The movement of the common objective lens (31) will simultaneously effect the focusing state of the image to be seen by the eyepiece and the sensing system at the same time.

Fourth, the arrangement of the viewing system and the image sensing system wherein both systems have the common objective lens and a beam splitter as disclosed by the primary reference, Patent 5,963,369, is similar to that provided by Abe. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modify the binocular device for providing a 3-dimensional image to an observer and to a solid state imaging device disposed inside the binocular device as provided by Steintal et al by moving the objective lens systems of the telescopes as suggested by Abe for the purpose of adjustment the focusing.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

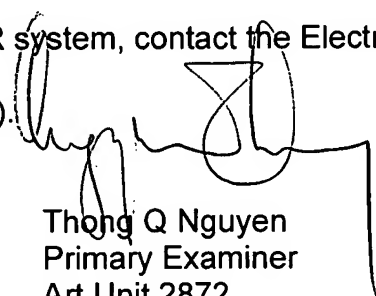
Art Unit: 2872

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q Nguyen whose telephone number is (571) 272-2316. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q Nguyen
Primary Examiner
Art Unit 2872
